LAWS OF THOUGHT AND PATTERNS OF LOVE:

GLIMPSING INTERCONNECTIONS BETWEEN THE FOUNDATIONS OF LOGIC AND THE FOUNDATIONS OF ETHICS



The concepts of "gift" and "logic of gift" as they appear in the Encyclical Caritas in veritate *open the way to a further analysis of the category of relation. The author develops the theme first from the perspective of philosophical logic with particular reference to the book by Pierre-Jean Labarrière, "Au fondement de l'éthique. Autostance et relation", and subsequently from the viewpoint of formal ontology, showing that an adequate formal system of dynamic relations, inspired by the Trinity, can provide an appropriate model for the "dynamic of charity received and given". Since this formal dynamic pattern is also applicable to the Encyclical's description of truth, the basic underlying logic of truth and of gift of self appears to be the same.*

di
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"Those who know Love… know that in Love all and nothing coincides."
(Chiara Lubich)[1]

In his recent Encyclical *Caritas in veritate*, Benedict XVI places relational anthropology squarely at the basis of Christian social ethics. "The Christian revelation of the unity of the human race presupposes a metaphysical interpretation of the *"humanum"* in which relationality is an essential element" (n. 55). The pope also recalls that "The human being is made for gift" (n. 34) and cites "reciprocity as the heart of what it is to be a human being" (n. 57).

Transferring this relation-based anthropology to another level, we find reference in various passages of the Encyclical to a "logic of giving", "logic of gift", "logic of the unconditional gift" (nn. 6, 34, 36, 37) in contrast to a "logic of the market", "of exchange" ("giving in order to acquire"), or a "logic of public obligation (giving through duty)" (n. 39) .

One could ask: in what sense is the expression "logic of gift" in the document to be understood? Flowing from the general considerations outlined above, there is the obvious sense in which selfless love or gift is proposed as an ontological premise for ethically correct action. This is a meaning that permeates the Encyclical and that comes clearly to light regarding human solidarity and development at nn. 53-55. While not excluding that this may be the main interpretation, one can notice however that Benedict XVI also hints at another more fundamental reading of the expression "logic of gift", when from very beginning of the document he affirms that "Truth.. is *logós* which creates *diá-logos*, and hence communication and communion" (n. 4). It is an interpretation which he develops implicitly later on in the document, as we shall see. It would appear, furthermore, that divine love, by which "everything is shaped" and towards which "everything is directed" (n. 2), is seen as having the capacity to give form not only to the premises of ethical action, but also, on a distinct level, to the ontological foundations underlying laws of thought. This is one of the points I wish to develop in this paper.

The logic of gift at the basis of ethics: rethinking "relation"

Let us pause for a moment to reconsider the first interpretation. If we accept the fundamental premise that the human person is, in his or her essence, relation, in the sense of gratuitous self emptying as "gift", a whole series of ethical conclusions flow naturally. The injunction to love one's neighbour as oneself can be seen on the one hand as a direct consequence of the ontological status of the individual as total gift and on the other as expressing a recursive ontological expansion of be-

1) C. Lubich, quoted in G.M. Zanghì, "A Few Notes on Jesus Forsaken", in C. Lubich et al., *An Introduction to the Abba School*, New City Press, New York 2001, p. 91.

ing, pivoting on the measure without measure "as oneself".[2] Effectively, the more one is gift of self towards others, the more one "is", whereas any lack of openness towards others is per se a limitation of self. So in recognizing the concrete needs of others and acting to fulfil them, in reality, I am fulfilling in ever greater degree my own self.

Viewing the anthropology of *Caritas*… from a more holistic perspective, we can note that in the context of human solidarity, the pope observes that the essential oneness of humankind "presupposes" the fundamental premise mentioned above, i.e., relationality as essential to the human nature. Hence it is a "oneness" that presupposes an essential internal relatedness of many. This oneness of humanity in its turn leads to logical conclusions in social ethics, concretely motivating fundamental values such as justice and peace. In arriving at these conclusions, we are once again on the level of considering an ontological premise ("human solidarity") and seeking the logical implications that can be derived. In addition the premise is itself derived from (presupposes) relationality.

These two fundamental and mutually inclusive dimensions of human relationality and basic oneness, while both considered as premises of correct social ethics, evoke in their turn a further step in logical thinking, i.e., the need for "a new trajectory of thinking" "in order to arrive at a better understanding of the implications of our being one family" (n. 53). The pope is calling here for a deeper analysis of the ontological underpinnings of the discourse at hand, and he specifies, significantly, that "Thinking of this kind requires a deeper critical evaluation of the category of relation."

Logic, ontology and ethics (Pierre-Jean Labarrière)

In stating that the task of rethinking the category of relation "cannot be undertaken by the social sciences alone," Benedict XVI indicates the necessary contribution of disciplines such as metaphysics and theology (n. 53), but obviously does not exclude the role of other areas of study, deeply convinced as he is that interdisciplinary cooperation is necessary for reaching truth.[3]

2) In analyzing the concept of "other" as image of self, Michel Deguy describes the particle "as" as the pivot of reciprocity, "the turning over into self of each term of the dialectic, the movement of their mutual presupposition: self as an 'other'." L'energie du désespoir, ou d'une poétique continue par tous le moyens, collanda "Les essays du Collège International de Philosophie", PUF, Paris 1998, p. 99, cit. in Pierre-Jean Labarrière, *Au fondement de l'éthique. Autostance et relation*, Editions Kimé, Paris 2004, p. 42.

3) For example, in speaking to European university lecturers, Vatican City, June 23, 2007: "The university, for its part, must never lose sight of its particular calling to be a *universitas* in which the various disciplines, each in its own way, are seen as part of a greater unum. How urgent is the need to rediscover the unity of knowledge and to counter the tendency to fragmentation and lack of communicability that is all too often the case in our schools!".

In the section that follows I will concentrate our attention on the concept of "relation" as developed in philosophical logic with particular reference to the book of Pierre-Jean Labarrière, *Au fondement de l'éthique. Autostance et relation* (Editions Kimé, Paris 2004).[4] I will then go on to an analysis of relation from the perspective of formal ontology.

Let us begin with the philosophical approach. As Labarrière recalls, quoting Meister Eckhart (in whose sermons he is well versed, having translated them in their entirety), it is often thought that the category of "substance" has the fullest "being" for Aristotle, whereas in his categorical system relation plays an insignificant role. In fact for classical medieval doctrine, relation has the weakest "being" of all the categories since it is in no way an essential dimension of substance.[5]

With Husserl, Frege and Hegel, the category of relation began to take on deeper significance in the ambit of logic, as part of its flesh and blood, so to say, and not as a mere adjunct. Labarrière's book builds on the thought of Hegel, of which he is an expert, extending it towards new horizons, in the hope that "these reflections that are of a *logical* nature be present and active in the sphere of ethics, in those persons who have the task of drawing up norms for society, in all those areas in which, concretely speaking, the image of man is at stake..."[6]

In what follows I will try to sum up some of Labarrière's fundamental thoughts regarding relation, although the entire discourse is obviously much richer and more complex than what will be presented here. To begin we could point out that, in the Hegelian sense, logic more or less coincides with metaphysics (it is the so-called "greater logic"[7] or "fundamental logic") and is thus a logic that attempts "to propose the *principles underlying the structure of everything that exists*,"[8] while also being at the basis of a relational ethics. So Hegel's aspiration to connect logic and ethics (in spite of the errors in his system of thought) could have much to suggest to those who, in the light of the new encyclical, are seeking a deeper understanding of the category of relation to be applied in the context of Christian anthropology.[9]

Underlying Labarrière's analysis is the Hegelian dialectic in which "the process of becoming is necessary to being in order that being be that which it is."[10] This realization contains a paradox, "a contradiction which produces meaning: being can-

4) Recently published in an Italian version: *Logica, fondamento dell'etica. Autostanza e relazione*, Effatà Editrice,Torino 2009.
5) Cf. Labarrière, *Au fondement,* cit. , pp, 51-52. The English translation of this and of the following quotations is my own.
6) *Ibid*., nota 2, p. 11.
7) *Ibid*., p. 35.
8) *Ibid*., p. 41.
9) For an analysis of Hegel's phenomenological approach as a "Christological dramatics of Form" cf. P. Coda, *La percezione della forma. Fenomenologia e cristologia in Hegel*, Città Nuova, Rome 2007.
10) Labarrière, *Au fondement,* cit., p. 16.

not become that which it is if not because it is such and in order to be such, that is in order to continue to be such."[11] Thus "as logic unfolds, it always inscribes in the heart of being, an other-than-self, in its essential dimension of coming to light."[12]

The author is aware that these considerations present a revolutionary ontological challenge which he attempts to meet.[13] His main thesis, already announced in the title of the book, is the law of "identity in the process of becoming," between two aspects which he describes as "profoundly complementary:" "relation and *autostance*."[14] "*The fundamental ethical act*, he affirms, can be defined precisely as a dialectical articulation" of these two categories.[15]

Thus the question is: what are we dealing with in speaking of *autostance* and relation? The term "*autostance*" (a new translation, which the author takes great pains to explain, of the original German term *Selbstandigkeit*) indicates "that the reality thus qualified must 'stand on its own feet', that is, it must contain its own negation in itself, a reflexive negation, the figure of which … consists in recognizing the relational character of every true otherness."[16] Here negation is to be understood in the positive sense of the total detachment implied in outward projection. In light of the necessary interdependence of interiority and exteriority, or better, in the light of their mutual presupposition, relation becomes "the proper element and in-between-locus" of *autostance*.[17] Widening the perspective the author states that "the content of *autostance* is the movement of relation,"[18] and that "the dimension of *autostance* has as its contents a relation:" not only the relation of self to self, but also the relation which involves an other-than-self.[19]

We will now go on to examine the second term of the binomial "*autostance* and relation", although, as we have seen, since the two terms are interdependent, this second term is already included in the first. In what sense does the author speak separately and anew of "relation," in a chapter dedicated specifically to this term? The concept of relation intended here, as he clarifies, is markedly different from that which is understood in any "logic of solid bodies." "Instead it falls under the economy of 'dialectical logic' for which the terms in relation grow together towards their common *reflexive* fulfillment, their mutual veri-fication (becoming true), *through* one another."[20] We

11) *Ibid*.
12) *Ibid*., p. 17.
13) Cf. *Ibid*. For a trinitarian ontology, expressed as an ontology of love, see K. Hemmerle, *Tesi di ontologia trinitaria*, Citta Nuova, Roma 1996. (original title: *Thesen zu einer trinitarischen Ontologie*, Johannes Verlag, Freiburg 1992).
14) Labarrière, *Au fondement,* cit., p. 29 e 43. Throughout the article I have left Labarrière's neologism in his native tongue, rather than attempt an English rendering such as "self-standingness".
15) *Ibid*., p. 39.
16) *Ibid*., p. 46.
17) *Ibid*., p. 42.
18) *Ibid*., p. 60.
19) *Ibid*., p. 57. "Thus *autostance* is far from the sense of a closing in of an individual on himself, in an interiority understood as a doubling of an exclusive 'I'."
20) *Ibid*., p. 63, see also note 19.

can note that here, as in the previous descriptions of *autostance*, the term relation per se remains primitive and undefined. In the first case relation is not predicated directly of *autostance* and the content of *autostance* is not relation, but the movement of a relation (while relation is said to belong to the dimension of *autostance*). So it would seem that the relation of which the author is speaking is a relation that mediates itself. In the second case, as in the quote above, the reference is not directly to relation but to "terms *in relation*," for which there is a "common reflexive fulfillment." In fact, reflexivity is a key element in the description of relation here, and relation "expresses essentially the reality of mediation."[21] The author claims that "relation is fulfilled in and through a bi-vectorial movement of full reciprocity, since the relation to self becomes concrete only in the relation to an 'other-than-self'."[22] In analyzing the two complementary dimensions of *autostance* and relation the author ends up positing a necessary "quadrivectoriality" in the dimension of ethics, "because my action towards another is conditioned … by the negative action I exert on myself, which in its turn is conditioned by the action of the other on his or her self."[23]

Dynamic oneness and the priority of relation

Labarrière's profound analysis of human ontology as relational and as such at the foundation of ethics can be found mirrored to a certain extent in the recent Encyclical, although there are some points that I think need to be clarified and completed, to which I will return later. What I would first like to highlight is the manner in which this analysis opens the way to a radical juxtaposition of perspective in considering the formal category of relation.

Labarrière hints that he is aware of this when, continuing the reflections of Meister Eckhart quoted above, he refers to an overturning of the situation of the "poverty of being" of relation, which can be viewed as "a fullness of positivity in the measure of the negativity it includes."[24] In the words of the medieval mystic: "This mode (relation) is in God equal to the greatest of all, that which has most being. In God they have equal import."[25] In this way of considering the term relation, as Labarrière rightly notes, "there is no longer the impossibility in principle of understanding substance as being internally defined by relation; relation is restored to a reality of primitive value,"[26] thus overturning "every ontological hierarchy of the two terms in question."[27] It is in fact just such an attempt to define human substance as intrinsically bound to relation which underlies his entire exposition.

21) *Ibid*.
22) *Ibid*., p. 66.
23) *Ibid*.
24) *Ibid*., p. 52.
25) Meister Eckhart, *I Sermoni*, a cura di M. Vannini, Paoline, Milano 2002, p. 148 in *Ibid*.
26) Labarrière, *Au fondement,* cit., p. 52
27) *Ibid*, p. 60.

An extreme position of this radical juxtaposition of substance and relation can be found in Buddhist thought, where individual entities are not considered to be substantially separable, but "reality is seen rather as a boundless web of interrelations whose momentary nodes make up the 'things' of experience. It is pure relation without substance."[28]

Of course, the references in Labarrière's book and his personal background point to the typically Christian model implicitly underlying his ontological inquiry: the pattern of the Trinity, which the Encyclical *Caritas in Veritatis* also cites as capable of shedding light in a striking way on Christian anthropology and social ethics. It is a picture in which relation and substance are mutually inter-dependent. "The Trinity is absolute unity insofar as the three divine Persons are pure relationality. The reciprocal transparency among the divine Persons is total and the bond between each of them complete, since they constitute a unique and absolute unity" (n. 54).

We cannot stop to examine here the very rich tradition of Christian thought on unity and relationality in the Trinity and its applications to human action, as it has developed from Augustine to Bonaventure and Aquinas, from Rosmini to Von Baltasar and Bulgakov.[29] In this brief article, as I mentioned at the outset, my goal is limited to proposing that the divine Agape, which Augustine intuits as the locus of the mystery of the Trinity, and the "eternal act of self giving," which Rosmini identifies as constitutional of trinitarian being,"[30] are concepts able to give form not only to Christian anthropology and to the premises of ethical action, but also to present a model capable of being expressed in formal language which can in turn shed new light, on a distinct level, upon the very laws of thought.

Formal ontology and relation as primary

In this concluding section I shall tie the various threads of discourse that have been unravelled in the process of this analysis. Applying a formal ontology inspired by trinitarian relations, I think we see emerging a clarification of terms and a distinct logical pattern of thought.

According to the famous expression of Frege: "Every true philosopher is at least half mathematician and every true mathematician is at least half philosopher." Since I am perhaps more a member of the second category than the first, the term vector

28) W. King, forward to K. Nishitani, *Religion and Nothingness*, University of California Press, Berkley, 1982, describing the notion of conditioned co-production (pratitya.samatpada). I reserve a further analysis of the work of Nishitani, major exponent of the Kyoto School of Zen Buddhism, to a future article.
29) For an in depth study of the concept of Trinitarian relation in Augustine and a brief overview in the other authors, cf. P. Coda, *Sul luogo della Trinità, rileggendo il De Trinitate di Agostino*, Città Nuova, Rome 2008.
30) *Ibid*., p. 64-65 and p. 76.

("bi-vector" and "quadrivector"), used by Labarrière to describe relations, with its connotation of directed force or transmission, struck me as a cue pointing to an area of logical investigation, namely formal ontology, where a symbolic, mathematical-style language helps to render basic underlying concepts of thought clearer and more precise. For example, using the methods of this field of study, one could seek a more formal expression of the implications of various descriptions of relationality, such as the Hegelian-based philosophical analysis proposed by Labarrière summarized above.

A recent study of L. Obojska, outlined in a previous number of this review,[31] provides such a key. The author's contribution is rooted in a project of Ennio De Giorgi, well-known Italian mathematician, who in the spirit of Leibniz and Frege, elaborated a formal axiomatic framework for mathematics, logic and computer science, based on the sole primitive concepts of quality and relation, expressing his hope that his efforts might also serve to clarify situations where autoreference is involved.[32] However if one attempts to translate the dynamic concepts of *autostance* and relation in Labarrière's text into the formal language of De Giorgi, one notes the inherent limit of De Giorgi's intuitive primitive concept of relation (binary relation) to this end. Instead in Obojska's article, which continues and carries forward De Giorgi's thought, a dynamic understanding of the term "relation" is made possible through the formal introduction of the abstract concept of "primary relation" and of a particular form of primary relation (called "tr relations"), applicable to relational dynamics and auto-reflexive systems. In effect, tr relations are a formal rendering of the non-intuitive dimension of "being" that "is" in as much as it is in movement, going totally out of self. In theological/philosophical terms we could say with Chiara Lubich, a modern mystic, that "love is and is not at the same time."[33] Thus tr relations are an attempt to formalize, on a highly abstract level, the pure relationality and profound interpenetration of relations which lie at the heart of dynamic unity.

The formal rendering of various systems of thought in terms of tr relations can also be

31) L. Obojska, "Primary Relations in a New Foundational Axiomatic Framework," *Journal of Philosophical Logic* 36 (2007): 641-657. Cf. J. Povilus, "Formal Ontology and Dynamic Oneness. Exploring the Ontological foundations of Logic," in *Sophia*, n. 0 (2008), pp. 92-100.
32) E. De Giorgi, M. Forti, G. Lenzi, "Verso i sistemi assiomatici del 2000 in matematica, logica e informatica," Scuola Normale Superiore di Pisa, *Preprints di Matematica* 26 (1996): 1-19. Citing the "difficult terrain" of autoreference De Giorgi notes that "very insidious problems are involved, out of which however emerge some of the deepest forms of meaning in the various areas of human knowledge", adding that "in order to understand these problems clearly we need to foster a very open, free discussion among scholars of various disciplines, not limited to restricted groups of specialists," p. 16
33) C. Lubich, Writ August 28, 1949, cit. in J. Povilus, *United in His Name*, New City Press, New York, 1992, p. 66. As Obojska states clearly in the final paragraph of her published article, the results she expresses in a purely formal language were inspired by the profound experience and writings of Chiara Lubich, in which the trinitarian model comes unmistakably to light. "Three... form the Trinity, yet they are one because love is and is not at the same time." Formally a tr relation is a form of primary relation whose fundamental binary relation is bijective, and for which the entities related by the fundamental binary relation are not the same object (it is not the identity relation).

shown to be valuable for a clearer in-depth analysis of the dynamics involved. Returning, for example, to Labarrière's exposition, we could attempt to depict the two fundamental categories of *autostance* and relation in the formal language of tr relations, hoping of course in our translation to remain true to the original intent of the author.

Let us begin with the second category: "relation". In speaking of "terms in relation" Labarrière indicates a necessary internal reflexivity. "The relation is fulfilled in and through the bi-vectorial movement of a full reciprocity, since the auto-relation becomes real only in the relation to an other-than-self." Using Obojska's formal system the "terms in relation" are themselves expressible as primitive relations. Each term can, in fact, be expressed as a primary tr relation. Moreover, by way of the mereological perspective underlying the definition of type tr1 and type tr2 relations,[34] by their very nature each of these terms can be seen as containing the other-than-self in self in a continually dynamic, cyclically reflexive growth, which could be described as perichoretic. Furthermore these two types of primary relations are co-essential, although not co-existent.

An analysis of the first category *autostance* in terms of the formal ontology of tr relations is more problematic and, if I have understood correctly, reveals an inherent weakness. In fact translated into Obojska's terms, the author's definition of *autostance* would seem to indicate the standard identity relation, id (relation of self to self), which, although not a tr relation, is also by definition a primary relation. At the same time, in every case *autostance* presupposes a primary type tr1 relation. The resulting "quadri-vector system" posited by Labarrière as a sum result would now appear to be unsatisfactory. In fact id - a primary relation - implies ontological closure; tr, also a primary relation, implies ontological openness: these two forms of primary relation would seem to be irreconcilable at their very root.

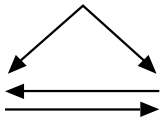


Although every representation is of course partial, I would like to propose an alternative model reflecting the "dynamic of charity received and given" underlying the Encyclical *Caritas*.. (n. 5), in which the creative love "through which we have our being" is the source by which we become "subjects of love". We could do so, remaining in a "quadri-vector system", by substituting the identity relation id with a direct form of tr2 (created reality as a form of tr2). This is not irreconcilable with the type of reciprocal relationality described by Labarrière, but on the contrary, would seem to imply it, for tr2 is defined as "containing" tr1 in itself, identical but distinct, in a mereological sense. In other words, every created reality is generated but contains the Generator in itself. Analyzing the expression of Chiara Lubich: "I was created (tr2) as a gift (tr1) for the person next to me and the person next to me was created by God (tr2) as a gift (tr1) for me. As the Father in the Trinity is

34) Mereology is the theory of parthood relations formulated in exact terms by the Polish mathematician and logician, Stanislaw Lesniewski (1886-1939).

everything for the Son and the Son is everything for the Father."[35]

While the concept of tr relations is non-intuitive, and every static graphic representation is limited and incomplete, we could attempt to give an idea of the pattern involved as follows:

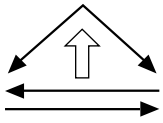


Conclusion: Patterns of logic, patterns of thought, patterns of love

There is one remaining strand of thought to attend to before we end.

Quoting from the Encyclical *Caritas in veritate* at the start of this paper I mentioned an interpretation of the expression "logic of gift", to which I promised to return, in reference to the statement: "Truth is Logos which creates Dia-logos." It is worthy of note that in this description of truth Benedict XVI is inverting the order of thought of another pope, John XXI, (otherwise known as Pietro Ispano: 1205-1277), the opening lines of whose *Tractatus* on logic point to dialogue (dialectics) as the fundamental source of knowledge.[36]

While not denying that dialogue is a master path for arriving at knowledge and truth, Benedict XVI, in affirming that "truth is logos creating dia-logos" and in another passage that "truth unites spirits and causes them to think in unison, attracting them as a unity to itself "(n. 54), points to a complementary dynamic pattern not dissimilar to the pattern traced out above. In fact, if these two descriptions of truth are analyzed in terms of type tr primary relations, we can catch a glimpse of the same dynamic pattern outlined above in reference to interpersonal relations. The basic underlying logic of truth and of gift of self appears to be the same.[37]



35) C. Lubich, in Povilus, op. cit. p. 67. Also: "The soul, because it is an image of God, is love, and love that turns in upon itself is like a flame, that because it is not fed, dies out." (Id., *Essential Writings*, New City Press, New York 2007, p. 80).
36) His *Tractatus* on logic begins: "Dialectics is the art which opens the way to every method. Therefore in gaining knowledge of the various sciences, dialectics must come first." Ispano goes on to analyze the term dialectics as having the same etymological derivation as "dialogue" "as if indicating reasoning or discourse from two different parts." As Augusto Ponzio notes in his introduction to the text, this implies "recognition of the dialogical foundation of the principles of methodology and research of every field of knowledge." (*Introduzione al libro Pietro Ispano, Trattato di logica, Summule logicales*, Bompiani 2004, XII).
37) Cf. also G.M. Zanghì's reference to a trinitarian mode of thought "because each is thinking in that dilated interiority which includes in self the other-than-self … united and distinct in the one life and thought of Christ." *Notte della cultura europea*, Città Nuova, Rome 2007, p. 79.

In the spirit of interdisciplinary research typical of this review and in the light of the insights that have emerged in this study, I would venture to propose that the approach of formal ontology can offer a useful contribution to the study of relations. Perhaps it represents one of those "unexpected, but necessary new forms" - "fruit of a concrete thought process", which Labarrière calls upon as crucial for the task of philosophers today.[38]

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38) Cf. Labarrière, *op. cit.* p. 82. He says it is "necessary in order to demonstrate that the prevailing concept of monolithic unity must logically give way … to the kind of relational unity evoked above. "